

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with D. Scott Moore, Registration No. 42011 on 12/18/2009.

The application has been amended as follows:

1. (currently amended) A method of operating a data network between a routing gateway for a subscriber and ~~a data~~ an application data service provider providing a ~~data~~ an application data service wherein the routing gateway is at a customer premises remote from the data network, ~~and~~ wherein the application data service provider is located remote from the data network, and wherein the routing gateway is coupled to the data network via a digital subscriber line, the method comprising: receiving at the data network from the application data service provider an identification of the routing gateway comprising a digital subscriber line identification of the routing gateway, an identification of the application data service provider, and data flow characteristics of the application data service for a session of the routing gateway using the application data service provided by the application data service provider wherein the application data service provider is remote from the data network, and wherein the data flow

characteristics of the application data service include a bandwidth characterization for the application data service and a priority characterization for the application data service both received from the application data service provider; responsive to receiving at the data network the identification of the routing gateway, the identification of the application data service provider, and the data flow characteristics for the application data service, saving the data flow characteristics of the application data service for the routing gateway including the bandwidth characterization and the priority haracterization at the data network; and forwarding the data flow characteristics of the application data service from the data network to the routing gateway at the customer premises remote from the data network, wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization over the digital subscriber line to the routing gateway at the customer premises remote from the data network; providing an interconnection between the routing gateway and the application data service provider through the data network and the digital subscriber in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider; after providing the interconnection and completing the session, deleting the data flow characteristics including the bandwidth characterization and the priority characterization saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider; and after providing the interconnection and completing the session, terminating the interconnection between the routing gateway and the application data

service provider to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

2. – 3. (canceled)

4. (currently amended) A method according to Claim 1 wherein receiving further includes receiving an authorization code for the application data service, the method further comprising:

before saving the data flow characteristics, validating the authorization code.

5. (original) A method according to Claim 1 wherein saving the data flow characteristics at the data network comprises creating an application flow control record for the routing gateway.

6. (original) A method according to Claim 1 wherein saving the data flow characteristics comprises saving the data flow characteristics at first and second databases within the data network.

7. (original) A method according to Claim 6 wherein the first database is associated with a concentrator and the second database is associated with a service manager.

8. (currently amended) A method according to Claim 1 wherein receiving is preceded by:

receiving a request from the routing gateway for a session using the application data service provided by the application data service provider; and forwarding the request from the routing gateway to the application data service provider.

9. (currently amended) A method according to Claim 8 further comprising:

providing an interconnection between the routing gateway and the application data service provider in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider.

10. (currently amended) A method according to Claim 9 further comprising:
deleting the data flow characteristics saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider; and

terminating the interconnection between the routing gateway and the application data service provider to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

11. (currently amended) A method according to Claim 10 further comprising:
before deleting the data flow characteristics, receiving a request from the application data service provider to delete the data flow characteristics for the session of the routing gateway using the application data service, wherein the data flow characteristics are deleted responsive to receiving the request.

12. – 22. (canceled).

23. (currently amended) A data network providing a data connection between a routing gateway for a subscriber and an application data service provider providing a an application data service, wherein the routing gateway is at a customer premises remote from the data network, and wherein the application data service provider is remote from the data network, and wherein the routing gateway is coupled to the data network via a

digital subscriber line, the data network comprising: a first transceiver at the data network configured to receive from the application data service provider an identification of the routing gateway comprising a digital subscriber line identification of the routing gateway, an identification of the application data service provider, and data flow characteristics of the application data service for a session of the routing gateway using the application data service provided by the application data service provider wherein the application data service provider is remote from the data network, and wherein the data flow characteristics of the application data service include a bandwidth characterization for the application data service and a priority characterization for the application data service both received from the application data service provider; a memory at the data network configured to save the data flow characteristics of the application data service for the routing gateway including the bandwidth characterization and the priority characterization at the data network responsive to receiving the identification of the routing gateway, the identification of the application data service provider, and the data flow characteristics for the application data service; and a second transceiver at the data network configured to forward the data flow characteristics of the application data service to the routing gateway at the customer premises remote from the data network, wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization over the digital subscriber line to the routing gateway at the customer premises remote from the data network; wherein the first and second transceivers are configured to provide an interconnection between the routing gateway and the

application data service provider through the data network in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider; wherein after providing the interconnection and completing the session, the memory is configured to delete the data flow characteristics saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider; and wherein after providing the interconnection and completing the session, the first and second transceivers are configured to terminate the interconnection between the routing gateway and the application data service provider to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

24. – 25. (canceled)

26. (currently amended) A data network according to Claim 23 wherein the first transceiver is further configured to receive an authorization code for the application data service, and wherein the memory is further configured to validate the authorization code before saving the data flow characteristics.

27. (original) A data network according to Claim 23 wherein the memory is further configured to save the data flow characteristics at the data network as an application flow control record for the routing gateway.

28. (original) A data network according to Claim 23 wherein the memory is further configured to save the data flow characteristics at first and second databases within the data network

29. (original) A data network according to Claim 28 wherein the first database is associated with a concentrator and the second database is associated with a service manager.

30. (currently amended) A data network according to Claim 23 wherein the second transceiver is further configured to receive a request from the routing gateway for a session using the application data service provided by the application data service provider, and wherein the first transceiver is further configured to forward the request from the routing gateway to the application data service provider wherein the first transceiver is still further configured to receive the identification of the routing gateway, the identification of the application data service provider, and the data flow characteristics of the application data service for a session of the routing gateway after forwarding the request from the routing gateway.

31. (currently amended) A data network according to Claim 30 wherein the first and second transceivers are further configured to provide an interconnection between the routing gateway and the application data service provider in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider.

32. (currently amended) A data network according to Claim 31 wherein the memory is further configured to delete the data flow characteristics saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider, and wherein the first and second transceivers are further configured to terminate the interconnection between the routing

gateway and the application data service provider to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

33. (currently amended) A data network according to Claim 32 wherein the first transceiver is further configured to receive a request from the application data service provider to delete the data flow characteristics for the session of the routing gateway using the application data service, and wherein the memory is further configured to delete the data flow characteristics responsive to receiving the request to delete the application data flow characteristics.

34. – 58. (canceled).

59. (currently amended) A method according to ~~Claim 58~~ Claim 1 wherein the application data service comprises gaming, video on demand, and/or access to a virtual private network.

60. (canceled)

61. (currently amended) A data network according to ~~Claim 60~~ Claim 23 wherein the application data service comprises gaming, video on demand, and/or access to a virtual private network.

Reason for Allowance

2. The following is an examiner's statement of reasons for allowance: Claims 1, 4-11, 23, 26-33, 59 and 61 are allowed.

The present invention is directed to a data network may be operated between a routing gateway for a subscriber and a data service provider providing a data service. More particularly, the data network may receive from the data service provider an identification of the routing gateway, an identification of the data service provider, and data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider. Responsive to receiving the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics for the data service, the data flow characteristics of the data service for the routing gateway may be saved at the data network and forwarded to the routing gateway.

Regarding claim 1, a method of operating a data network between a routing gateway for a subscriber and an application data service provider providing an application data service wherein the routing gateway is at a customer premises remote from the data network, wherein the application data service provider is located remote from the data network, and wherein the routing gateway is coupled to the data network via a digital subscriber line, the method comprising: receiving at the data network from the application data service provider an identification of the routing gateway comprising a digital subscriber line identification of the routing gateway, an identification of the application data service provider, and data flow characteristics of the application data service for a session of the routing gateway using the application data service provided by the application data service provider wherein the application data service provider is remote from the data network, and wherein the data flow characteristics of the

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application data service include a bandwidth characterization for the application data service and a priority characterization for the application data service both received from the application data service provider; responsive to receiving at the data network the identification of the routing gateway, the identification of the application data service provider, and the data flow characteristics for the application data service, saving the data flow characteristics of the application data service for the routing gateway including the bandwidth characterization and the priority characterization at the data network; forwarding the data flow characteristics of the application data service from the data network to the routing gateway at the customer premises remote from the data network, wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization over the digital subscriber line to the routing gateway at the customer premises remote from the data network; providing an interconnection between the routing gateway and the application data service provider through the data network and the digital subscriber in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider; after providing the interconnection and completing the session, deleting the data flow characteristics including the bandwidth characterization and the priority characterization saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider; and after providing the interconnection and completing the session, terminating the interconnection between the routing gateway and the application data service provider

to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

Regarding claim 23, a data network providing a data connection between a routing gateway for a subscriber and an application data service provider providing a-an application data service, wherein the routing gateway is at a customer premises remote from the data network, and wherein the application data service provider is remote from the data network, and wherein the routing gateway is coupled to the data network via a digital subscriber line, the data network comprising: a first transceiver at the data network configured to receive from the application data service provider an identification of the routing gateway comprising a digital subscriber line identification of the routing gateway, an identification of the application data service provider, and data flow characteristics of the application data service for a session of the routing gateway using the application data service provided by the application data service provider wherein the application data service provider is remote from the data network, and wherein the data flow characteristics of the application data service include a bandwidth characterization for the application data service and a priority characterization for the application data service both received from the application data service provider; a memory at the data network configured to save the data flow characteristics of the application data service for the routing gateway including the bandwidth characterization and the priority characterization at the data network responsive to receiving the identification of the routing gateway, the identification of the application data service provider, and the data flow characteristics for the application data service; and a second

transceiver at the data network configured to forward the data flow characteristics of the application data service to the routing gateway at the customer premises remote from the data network, wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization over the digital subscriber line to the routing gateway at the customer premises remote from the data network; wherein the first and second transceivers are configured to provide an interconnection between the routing gateway and the application data service provider through the data network in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider; wherein after providing the interconnection and completing the session, the memory is configured to delete the data flow characteristics saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider; and wherein after providing the interconnection and completing the session, the first and second transceivers are configured to terminate the interconnection between the routing gateway and the application data service provider to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

The closet prior art (Dravida et al. (US 2002/0105965 A1) disclose a method of communicating through the access network includes assigning a routing identification (RID) to each network element and receiving at a first network element a packet having a destination MAC address of one of the end user devices. Based on the destination

MAC address of the end user device to which the particular second network element is connected, the RID of the particular second network element is inserted into the packet, to provide an augmented packet. The augmented packet is switched through at least one of the intermediate network elements to the second network element corresponding to the inserted RID. The inserted RID is removed from the received augmented packet at the second network element to provide a restored packet. The restored packet is sent to the end user device corresponding to the destination MAC address. Data links are made over relatively short runs of coax cable, which can provide greater bandwidth than the typical end-to-end feeder/distribution connection between a home and the headend or optical network unit.

Claims 4-11, 59 and 26-33, 61 are allowed since they depend on claims 1 and 23 respectively.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SYED BOKHARI whose telephone number is (571)270-3115. The examiner can normally be reached on Monday through Friday 8:00-17:00 Hrs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang B. Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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